

**Health, Wellbeing and Local Government Committee  
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Inquiry into the Use and Regulation of Sunbeds –Written evidence  
from Tenovus**

Consultation Response to the Health, Wellbeing and  
Local Government Committee Inquiry:

The Use and Regulation of Sunbeds in Wales

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Each year over 10,000 people in the UK are diagnosed with malignant melanoma, the most dangerous and potentially lethal form of skin cancer. In Wales alone there are around 500 cases each year with over 100 deaths.

The rise in the incidence of malignant melanoma is truly alarming. In Wales, between 1996 and 2006 (Figure 1) the number of cases in both men and women has more than doubled and this trend shows no sign of abating<sup>1</sup>.

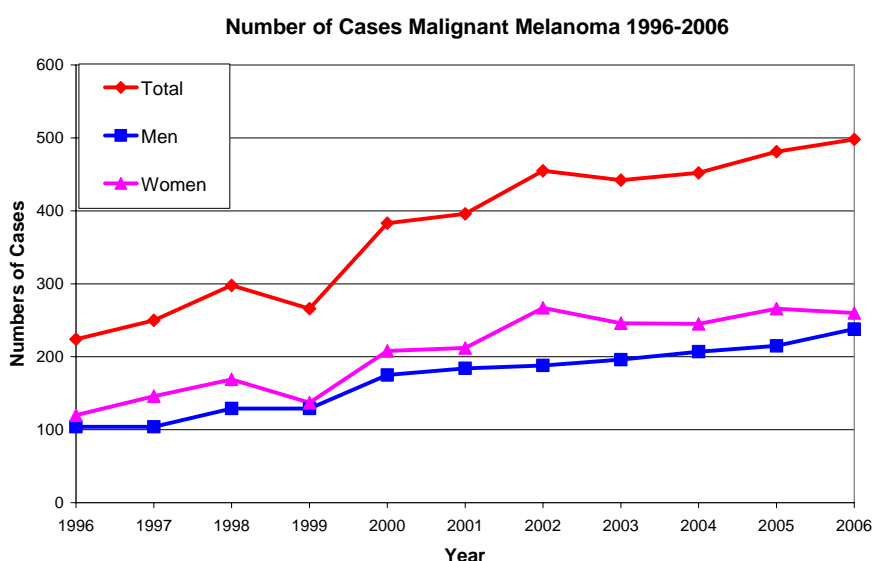


Figure 1. Rates of malignant melanoma in Wales 1996-2006. Source of data: Wales Cancer Intelligence Surveillance Unit

Skin cancer is very strongly linked to over exposure of ultraviolet radiation, whether from the sun or artificially from sunbeds<sup>2,3,4</sup>. Like all forms of high intensity radiation, UV radiation not only damages the cells that make up your skin, but also the DNA within them that controls how they grow. If this DNA becomes damaged then the skin can start to grow uncontrollably and turn cancerous (Figure 2).

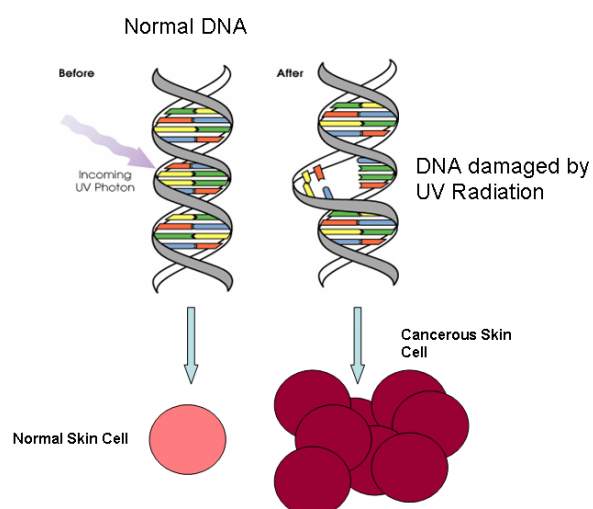


Figure 2. Ultra Violet (UV) radiation damage of DNA leading to development of skin cancer

The link between UV radiation exposure from sunbeds and skin cancer was emphasised in July this year when the International Agency for Research on Cancer announced that it was reclassifying UV-emitting tanning devices as a Group 1 carcinogen. This places them in the same class of cancer causing factors as exposure

to Asbestos, Benzene, Tobacco and Radium<sup>5</sup>. This conclusion came through the analysis of over 20 epidemiological studies that together showed that the risk of cutaneous melanoma is increased by 75% when the use of tanning devices starts before age 30. There is also sufficient evidence of an increased risk of ocular melanoma associated with the use of tanning devices<sup>5</sup>. In fact one study estimated that overall, sunbeds could be responsible for as many as 1000 cancer deaths in the UK each year<sup>6</sup>.

Modern sunbeds are powerful sources of UV radiations that do not exist in nature, and repeated exposures to high doses of UVA constitutes a new phenomenon in humans<sup>7,8</sup>. This is particularly concerning when you consider that some machines are capable of emitting UV radiation up to 5 times stronger than the midday Australian summer sun<sup>9</sup> and approximately 40 per cent of sunbed users in the United Kingdom have fair skin and are therefore more susceptible to developing skin cancer<sup>10</sup>.

These factors have led to one expert in the field of radiation protection to refer to the use of tanning parlours as "*an industrial-scale radiation exposure experiment involving significant parts of the populations of Northern Europe and America*"<sup>11</sup>.

This is not an exaggeration. Commercial sunbeds were developed in the 1970s and didn't come into widespread use until the 1990s. Therefore, the long term health effects of artificial tanning are not yet known. It will take several years before the real picture of the role of the sunbeds play in inducing skin cancer becomes fully apparent due to the long induction period of this disease.

In Wales and the UK we have taken measures to protect children and young people from the detrimental health effects of tobacco and alcohol. Yet in sunbeds we have a situation where high levels of a known carcinogen are freely available and largely unregulated on the high street.

Two particularly shocking cases in Wales have highlighted the issue in recent months. The case of 14 year old Kirsty McRae who spent 19 minutes on a sunbed at an unmanned salon and ended up in Hospital overnight because of her injuries<sup>12</sup> and a girl of just 10 years old who suffered 70% burns after just 16 minutes on a coin operated sunbed<sup>13</sup>. Use of sunbeds by children even younger than this has been reported in recent studies<sup>14</sup>. This is extremely concerning as UV exposure in children is a known factor in the development of skin cancer in later life<sup>15</sup> and children's skin is much more delicate than adults. Also, research has shown that sunburn in childhood can double the risk of getting skin cancer later in life<sup>16</sup>.

Therefore, Tenovus is calling for the use of sunbeds by under 18 year olds to be prohibited and for a ban on all un-manned, coin operated sunbeds across Wales. This is vital in protecting the children and young people of Wales from the well established harmful effects of over exposure to UV radiation from UV-emitting tanning devices such as sunbeds. However, this will only be effective if combined

with clear information and education regarding the links between UV radiation exposure and skin cancer across all age ranges.

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